



City of Las Vegas Hydrogen Energy Station

National Clean Cities
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Project Team Members

- U.S. Department of Energy
 - City of Las Vegas
 - Air Products and Chemicals Inc.
 - Plug Power Inc.



Major Components

- 100 KW Hydrogen Generator
- 50 KW Fuel Cell System
- 1,500 Gallon Liquid Hydrogen Storage
- Hydrogen Compression and Storage
- Hydrogen Dispenser
- Hydrogen/CNG Blend Dispenser



100 KW Hydrogen Generator

- Steam-Methane Reformer
- Produces 60,000 SCF of Hydrogen/day
- Designed to Meet the Hydrogen of 27 Vehicles



50 KW Fuel Cell

- Proton Exchange Membrane (PEM)
- Low-pressure, Multiple PEM Stack Configuration (Eight – 7.5 KW Stack Modules)
- 480 VAC, Grid Parallel Electrical Output
- Power on a Daily Basis for 30 homes



Liquid Hydrogen Storage

- 1,500 Gallon Storage
- Ambient Gas Vaporizer



Hydrogen Compression and Storage

- 85 scfm Henderson/Sulzer Compressor
- 6,250 psi Final Stage Pressure
- 60,000 scf ASME Storage
- 5,500 psi Storage Pressure



Dispensing System

- Single Hose Hydrogen @ 250 bar (3,650 psi)
- Single Hose CNG/Hydrogen (65% CNG & 35% Hydrogen) @ 250 bar (3,650 psi)



























